

WHAT IS CLAIMED IS:

1. A video signal converter adapted to receive an input video signal from a host and to transmit an output video signal to a detachable display module of a portable computer, the display module being provided with a fastening element, said video signal converter comprising:

a base adapted for supporting the display module thereon;

a latch unit mounted on said base and adapted to engage removably the fastening element on the display module when the display module is supported on said base, thereby retaining removably the display module on said base;

an input electrical connector mounted on said base and adapted to be coupled electrically to the host for receiving the input video signal therefrom;

a video signal processing unit mounted in said base, coupled electrically to said input electrical connector, and operable so as to convert the input video signal into the output video signal that is suitable for use by the display module; and

an output electrical connector mounted on said base, coupled electrically to said video signal processing unit, and adapted to be coupled electrically to the display module when the display module is retained on said base so as to permit transmission of the output video signal from said video signal processing unit to

the display module.

2. The video signal converter as claimed in Claim 1, the display module having a bottom side formed with the fastening element, wherein said latch unit includes a latch member movable between a latched position, where
5 said latch member is adapted to engage the fastening element, and an unlatched position, where said latch member is adapted to disengage from the fastening element.

10 3. The video signal converter as claimed in Claim 2, wherein said latch unit further includes a biasing spring for biasing said latch member to the latched position.

4. The video signal converter as claimed in Claim 3, wherein said base has a display supporting side that
15 is disposed to confront the bottom side of the display module when the display module is supported on said base, said display supporting side being formed with a groove that is confined by a groove-defining wall, said latch member being disposed in said groove and being connected
20 pivotally to said groove-defining wall.

5. The video signal converter as claimed in Claim 4, wherein said latch member has a hook end adapted to engage removably the fastening element on the display module when the display module is supported on said base.

25 6. The video signal converter as claimed in Claim 4, wherein said latch unit further includes a release member connected to said latch member and extending outwardly

of said groove, thereby permitting operation of said release member for moving said latch member to the unlatched position against biasing action of said biasing spring.

5 7. The video signal converter as claimed in Claim 4, wherein said biasing spring is a torsion spring having a first spring end acting on said latch member and a second spring end acting on said base.

10 8. The video signal converter as claimed in Claim 4, the bottom side of the display module being provided with a video port, wherein said output electrical connector is mounted on said display supporting side of said base so as to be adapted to connect electrically with the video port of the display module when the display
15 module is retained on said base.

9. The video signal converter as claimed in Claim 4, wherein said display supporting side of said base has two end portions opposite to each other in a longitudinal direction, said groove being formed in one of said end
20 portions of said display supporting side.

10. The video signal converter as claimed in Claim 4, wherein said display supporting side of said base is provided with a guide unit that is adapted for guiding movement of the bottom side of the display module toward
25 and away from said display supporting side.

11. The video signal converter as claimed in Claim 10, the bottom side of the display module being provided

with a guide post, wherein said guide unit includes a guide hole formed in said display supporting side of said base and adapted to permit extension of the guide post therethrough.